

This listing of claims is provided for ease of reference and replaces all prior versions and listings of claims in the application. All amendments are shown relative to the claims in the issued patent for which this application is a reissue.

Listing of Claims:

1. A first device for handling money that facilitates communications between an external controller and a further device for handling money, the first device for handling money comprising [including]:

a money handling apparatus;

an internal controller for controlling the money handling apparatus;

a first port for removable connection to [an] the external controller so as to couple the external controller to the internal controller for communication with the internal controller; and

a second port for removable connection to [a] the further device for handling money;

wherein the internal controller is arranged to communicate over the second port with the further device using a communications protocol that is not fully supported over the first port; and

wherein the communications protocol supports [enables] communication between the internal controller and any one of at least first and second different types of device for handling money, the first type handling money of a different type from those handled by the second type,

the first device for handling money being arranged such that communications between the external controller and the further device for handling money are relayed by the internal controller.

2. A device as claimed in claim 1, wherein the first and second types of device are different members of a group consisting of a banknote validator and a card reader.

3. A device as claimed in claim 1 [2], wherein the [group further consists of] first and second types of device are different members of a group consisting of a banknote validator, a card reader and a coin dispenser.

4. A device as claimed in claim 1, wherein the communications protocol is a bus-oriented protocol.

5. A device as claimed in claim 4, wherein the communications protocol is an MDB protocol.

6. A device as claimed in claim 1, wherein the internal controller is arranged to distinguish between said first and second type of device for handling money by a code received from said further device over said second port.

7. A method of communication for a first money handling apparatus, including:
communicating with an external controller over a first port of the first money handling apparatus, and

communicating with a further money handling apparatus over a second port of the first money handling apparatus by means of a communications protocol supporting communication with any one of at least first and second different types of device for handling money, the first type handling money of a different type from that handled by the second type, wherein the communications protocol is not fully supported over the first port.

8. A first device for handling money that facilitates communications between an external controller and a further device for handling money, the first device for handling money comprising [including]:

a money handling apparatus;

an internal controller for controlling the money handling apparatus;

a first port for removable connection to [an] the external controller so as to couple the external controller to the internal controller for communication with the internal controller; and

a second port for removable connection to [a] the further device for handling money for communication with the internal controller according to a communications protocol not fully supported by the first port;

the first device for handling money being arranged such that communications between the external controller and the further device for handling money are relayed by the internal controller, wherein the internal controller is arranged to copy the content of at least some signals between the first port and the second port without modification thereof.

9. (Canceled)

10. A device as claimed in claim 8 arranged such that [, wherein] the content of some of the signals received on the second port is modified prior to output on said first port.

11. A device as claimed in claim 10 [, wherein] arranged such that said signals, the content of which is modified, includes signals characteristic of the further device and not recognisable by said external controller.

12. A device as claimed in claim 8, wherein the internal controller implements, on both said first and second ports, a bus-oriented communications protocol.

13. A device as claimed in claim 8 arranged such that [, wherein] said signals are stored in memory prior to output.

14. A method of communication for a first money handling apparatus, including:
communicating with an external controller over a first port of the first money handling apparatus; and

communicating with a further money handling apparatus over a second port of the first money handling apparatus according to a communications protocol not fully supported by the first port;

wherein the content of at least some signals is copied between said first and second ports without modification.

15. A first device for handling money that facilitates communications between an external controller and a further device for handling money, the first device for handling money comprising [including]:

a money handling apparatus;

an internal controller for controlling the money handling apparatus;

a first port for removable connection to [an] the external controller so as to couple the external controller to the internal controller for communication with the internal controller; and

a second port for removable connection to [a] the further device for handling money for communication with the internal controller according to a communications protocol not fully supported by the first port;

wherein the internal controller is arranged to convert between first units of value used for communications over said first port and second units of value used for communication over said second port.

16. A device as claimed in claim 15, wherein the internal controller is arranged to receive an indication of the value of money received by said further device in said second units, to convert said value to said first units, and to output data representing said value in said first units on said first port.

17. A device as claimed in claim 15, wherein the internal controller is arranged to receive a command including an indication of a value in said first units on said first port, to convert said value to said second units, and to output a corresponding command including an indication of said value in said second units on said second port.

18. A device as claimed in claim 15, wherein the internal controller is arranged to determine a first value of money received by said money handling apparatus, to receive an indication of a second value of money received by said further device in said second units, and to combine said first and second values as a combined value in a single set of units.

19. A method of communication for a money handling device, including:
communicating with an external controller via a first port of the money handling device,
communicating with a further money handling device via a second port of the money handling device according to a communications protocol not fully supported by the first port, and
converting between first units of value used for communication over said first port and second units of value used for communication over said second port.

20. A first device for handling money that facilitates communications between an external controller and a further device for handling money, the first device for handling money comprising [including]:

a money handling apparatus;

an internal controller for controlling the money handling apparatus;

a first port for removable connection to [an] the external controller so as to couple the external controller to the internal controller for communication with the internal controller; and a second port for removable connection to [a] the further device for handling money for communication with the internal controller according to a communications protocol not fully supported by the first port;

wherein the internal controller is arranged to receive a code indicative of the type of the further device on the second port, and to output in response thereto on the first port an amended code representative to said external controller of a type different from that of the further device.

21. A method of communication for a first money handling device including:
communicating with an external controller via a first port of the first money handling device,

communicating with a further money handling device via a second port of the first money handling device according to a communications protocol not fully supported by the first port,
receiving a code indicative of the type of the further device on the second port, and
outputting in response thereto on the first port an amended code representative to said external controller of a type different from that of the further device.

22. Canceled.

23. Canceled.

24. The device of claim 1 wherein the money handling apparatus comprises a banknote validator.

25. The device of claim 1 wherein the money handling apparatus is operable to return change.

26. The device of claim 8 wherein the money handling apparatus comprises a banknote validator.

27. The device of claim 8 wherein the money handling apparatus is operable to return change.

28. The device of claim 15 wherein the money handling apparatus comprises a banknote validator.

29. The device of claim 15 wherein the money handling apparatus is operable to return change.

30. (Canceled)

31. (Canceled)

32. The device of claim 20 wherein the money handling apparatus comprises a banknote validator.

33. The device of claim 20 wherein the money handling apparatus is operable to return change.

34. Canceled.

35. Canceled.

36. A first device for handling money that facilitates communications between an external controller and a further device for handling money, the first device for handling money comprising:

a money handling apparatus;

an internal controller for controlling the money handling apparatus;

a first port for removable connection to the external controller so as to couple the external controller to the internal controller for communication with the internal controller; and

a second port for removable connection to the further device for handling money,

wherein the first and second ports do not have a common electrical connection for data transfer;

wherein the internal controller is arranged to communicate over the second port with the further device using a communications protocol; and

wherein the communications protocol supports communication between the internal controller and any one of at least first and second different types of device for handling money, the first type handling money of a different type from those handled by the second type.

37. A device as claimed in any one of claims 1 or 8 wherein the internal controller is arranged to communicate over the second port using a different version of a communications protocol supported by the first port.

38. The method of any one of claims 7 or 14 including communicating over the second port using a different version of a communications protocol supported by the first port.

39. A device as claimed in any one of claims 1 or 8 wherein the internal controller is arranged to communicate over the second port using a communications protocol different from a communications protocol supported by the first port.

40. The method of any one of claims 7 or 14 including communicating over the second port using a communications protocol different from a communications protocol supported by the first port.